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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/855,905 05/14/97 YAMANAKA

M 443-17

EXAMINER

IM52/0400

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KRIEGER, R

ART UNIT

PAPER NUMBER

1773

DATE MAILED:

04/30/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
08/855,905

Applicant
Yamanaka, Koyama, And Ueda

Examiner
Kevin Kruer

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1773



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Mar 1, 2001
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 and 27 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 and 27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 20) ☐ Other:

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DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-20 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takashi et al. (Pat. No. 4,318,950) and further in view of Ohba et al. (Pat. No. 5,233,924) and European Patent 0 613 919 A1 (a.k.a. Ueda). Takashi teaches that it is well known in the art to make synthetic papers comprising oriented thermoplastic laminates. Furthermore, inorganic fillers are often added to the thermoplastic resin prior to stretching in order to roughen the surface and render the film receptive to pencil, pen, and crayon markings (col 1, lines 19-46). It is also well known in the art that antistatic properties are desired in synthetic paper products.

Takashi teaches that a composition comprising inorganic fillers and a propylene matrix (col 7, line 63) are useful in making synthetic paper. Inorganic filler comprises 0.5%-65wt% of the composition (col 7, lines 8-10) and may be selected from the group consisting of calcium carbonate, silica, talc, titanium oxide, and clay (col 7, lines 1-4). The composition may further comprise an anti-static agent (col 8, lines 20-60, and the examples). Such agents are commonly added to synthetic papers in order to make the film more ink receptive during printing. The polypropylene composition containing inorganic filler is uniaxially oriented at least 2.5 times the original dimension, and possibly as high as 16 times the original dimension (col 5, lines 8-17). It

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is well known in the art to orient the film at a temperature lower than the melting point of the polypropylene resin. The film is stretch so that the void content is between 10-65% (claim 1; equation is in Table VII, col 17). The stretched film may be surface treated with corona discharge treatment at a voltage of 3,000 to 30,000 volts and a current of 0.5 to 5 amperes (col 4, lines 41-51). The polypropylene composition may be laminated to a biaxially oriented backing film layer (abstract). The thickness of such a laminate may be 30-140um, wherein the claimed polypropylene composition has a thickness of 10-100um (Table IV, col 14). Furthermore, all the examples taught in Takashi have a gloss of 60% or less (see Tables VII (a) and VII(b)).

Takashi does not teach the desired level of opacity of a synthetic paper. However, Ohba teaches a synthetic paper comprising a polyolefin matrix filled with inorganic filler, wherein the opacity of the film is desirably at least 80% (abstract) because such an opacity is sufficient for writing with a pencil (col 1, lines 6-12). Therefore, the examiner takes the position that it would have been obvious to one of ordinary skill in the art to alter the opacity of the film taught in Takashi so its at least 80% because such an opacity is sufficient for writing with a pencil.

Takashi teaches the use of an anti-static agent in a synthetic paper polypropylene composition, but does not teach the claimed antistatic composition. However, Ueda teaches an antistatic which may be utilized in a polypropylene composition (page 9, lines 34-42). The composition taught in Ueda comprises:

- component A: a polyolefin resin (55-95% by weight of the total composition)
- component B: a polyetheresteramide antistatic agent (3-40% by weight)
- component C: a polyamide resin (1-20% by weight), and

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component D: a compatilizer (0.2-20%)

The polyetheresteramide is derived from a polyamide oligomer having a number average molecular weight of 300 to 3,000 and which contains carboxyl groups at each end and an alkylene oxide adduct of bisphenol having a number average molecular weight of from 300 to 5,000 (claim 1). For example, the polyetheresteramide can be synthesized from an ϵ -caprolactam, an ethylene oxide adduct of bisphenol A, and adipic acid (page 12, example 1). Furthermore, 12-aminodecanoic acid may be used as the polyamide oligomer in place of the ϵ -caprolactam (page 3, lines 21-29). Ueda teaches that polyetheresteramides having aromatic rings as component B have a reduced viscosity of from 0.5 to 4.0 in 0.5 wt% m-cresol solution at 25°C (page 4, lines 21-24). It would have been obvious to one of ordinary skill in the art to utilize the antistatic agent taught in Ueda in the synthetic paper taught in Takashi because the polyetheresteramide is known to be compatible with polypropylene, heat resistance, maintains its antistatic properties permanently (abstract), and does not rinse away in the presence of water. Furthermore, it would have been obvious to utilize the polyetheresteramide in the amounts taught in Ueda because Ueda teaches that such amounts are sufficient for providing polypropylene matrixes with antistatic properties.

Ueda further teaches that the polyamide of component C increases the surface orientation of the polyetheresteramide (col 6, lines 38-47). The polyamide is selected from the group consisting of nylon 66, nylon 69, nylon 601, nylon 612, nylon 6, nylon 11, nylon 12, and nylon 46 (page 5, lines 21-22). Preferably the polyamide resin has a reduced viscosity of from 0.8 to 5 in 97% sulfuric acid (concentration 1g/100ml) at 30°C (page 5, lines 22-25). Thus, it would have

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been obvious to one of ordinary skill in the art to add the polyamide taught in Ueda in the taught amounts to the synthetic paper taught in Takashi because Ueda teaches that such polyamides (in the taught amounts) increase the surface orientation of the polyetheresteramide.

Ueda also teaches that a compatilizer is preferably utilized in order to improve compatibility with the resin, prevent interlaminar peeling of molded articles obtained, and improve the mechanical strength and appearance of the final product (col 6, lines 55-61). When polypropylene is utilized as the thermoplastic matrix, preferred compatilizers include (a) an acid modified low molecular weight polyolefin having a number average molecular weight of from 800-25, 00 and an acid number of from 5-150, (b) a hydroxy modified low molecular weight polyolefin having a number average molecular weight of from 800 to 25,000 and a hydroxy value of from 5 to 150, and c) an ester modified low molecular weight polyolefin obtained by partly or wholly esterifying an acid modified low molecular weight polyolefin with a polyoxyalkylene compound and having a number average molecular weight of from 1,000-28,000 (page 7, lines 21-29). Such a compatilizer may be obtained by reacting a low molecular weight polyolefin having a number average molecular weight from 700 to 20,000 with an unsaturated acid selected from methacrylic acid, maleic acid, maleic anhydride, fumaric acid, itaconic acid, itaconic anhydride, and citraconic anhydride (page 7, lines 30-39). The resulting product can be reacted further a) with an aliphatic amine selected from monomethanolamine, monoisopropanolamine, diethanolamine, and diisopropanolamine (page 7, lines 48-52), or b) by esterifying part or all of the carboxylic acid moieties of the modified low molecular weight polyolefin with a hydroxylated polyoxylalkylene compound (page 7, line 53 - page 8, line 9). The examiner takes the position

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that it would have been obvious to one of ordinary skill in the art to utilize the compatilizers taught in Ueda in their taught amounts in the synthetic paper taught in Takashi in order to improve compatibility with the resin, prevent interlaminar peeling of molded articles obtained, and improve the mechanical strength and appearance of the final product (col 6, lines 55-61).

Response to Arguments

3. Applicants' arguments filed March 5, 2001, have been fully considered but they are not persuasive.

In response to applicant's argument that Ueda fails to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., extrusion) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Furthermore, a method of making a product does not patentably distinguish a product from the prior art unless it can be shown that the method of making inherently results in a materially different product. No such showing has been made in the present application. It is also noted that Takashi, not Ueda, is the primary reference. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

The examiner agrees that Ueda does not teach that the composition may comprise the specific fillers claimed. However, the examiner would like to point out that Ueda was never relied

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upon for such a teaching. Rather, Takashi (aka the primary reference) was relied upon to teach the addition of filler to a propylene composition for the purpose of making synthetic paper. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicants argue that Ueda does not teach the claimed surface gloss (claim 1) or opaqueness. However, the rejection never relied upon Ueda for such a teaching. Rather, Takashi is the primary reference and is relied upon to teach the properties which are desirable in synthetic papers. All the examples of Takashi show that the surface gloss of the synthetic paper is below 60%. With respect to opaqueness, Takashi teaches that as filler concentrations increase, the opaqueness increases, which is desirable in synthetic papers (see Table VI).

Applicant argues that Takashi does not teach that the claimed amount of antistatic filler that should be added to the propylene composition. The examiner points out that the rejection never relied upon Takashi for such a teaching. Rather, Ueda teaches the amount of polyetheresteramide containing aromatic rings that need to be added to a composition in order to obtain desirable antistatic effects. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

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With regards to Applicants' attempted showing based upon comparative examples 2 and 3 in the specification, the examiner takes the position that those two examples cannot be properly compared because more than one variable is changed. In the instant case, the degree of orientation and the surface treatment of the film have been changed. Furthermore, Yamanaka's declaration (Paper #23) has been fully considered, but it is unclear how Applicant attempts to patentability distinguish the claimed invention by comparing a Comparative Example to another Comparative Example.

The examiner is not clear where it has been argued that inventive examples 6-8 and comparative example 2 have different degrees of orientation or how it is relevant to the patentability of the claims.

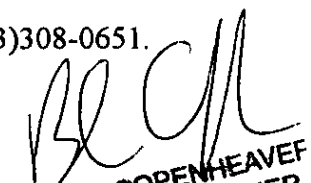
Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin R. Kruer whose telephone number is (703) 305-0025. The examiner can normally be reached on Monday-Friday from 7:30a.m. to 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver, can be reached on (703) 308-1261. The fax phone number for the organization where this application or proceeding is assigned is (703)305-5436.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0651.


Kevin Kruer


BLAINE COPENHEAVER
PRIMARY EXAMINER